**Group Discussions**

**Key characteristics**

1. Agro-ecology-Rain-fed Systems; Unimodal rainfall with strong seasonal effects (variability);
2. Majority of farmers are small scale subsistence (consider language – semi-subsitance) farmers with the majority of farmers with less than 1 ha;
3. Farming Systems: Cereal-legume systems; and is a crop-livestock based system; farming mainly by women and youth with differential access to land; labor differentials vary between crops (pigeon pea and sorghum: men; leafy vegetables: women);
4. Most crop-livestock systems are characterized by non-improved pastures; areas are characterized by land degradation;
5. The soils are predominantly low soil fertility with limited SOM and other constraints related to pH, limited vegetation cover in vast areas resulting in high soil erosion (issues around soil and erosion management);
6. Diversification of income: migration, motorbikes, and alternative livelihoods;
7. Poverty, food and nutrition insecurity is prevalent in most HHs mainly women, children and the elderly are most impacted;
8. Vegetable cultivation is chosen based on availability of water resources; mainly during the off season.
9. Markets, institutions: Poor linkage between farmers and organized groups that strengthens market opportunities and knowledge bases
10. Low use of external inputs and low productivity systems (reference to surveys, Andreas surveys, IFPRI baselines, Kihara et al survey, Lukuyu et al survey)
11. Pastoralists/issue of access to water/conflict resolution
12. Transformation to agro-pastoral system

**Key challenges:**

SI: Increase productivity per unit area with a lower footprint on the environment:

**Socio-economic**

1. Markets access and group dynamics in the context of working together and having a common supply pool; even among livestock systems; do a proper cost-benefit analysis;
2. Knowledge and information: Lack of knowledge on agronomic practices and skills (on vegetables, cereals, feed systems etc.; information not trickling down to women groups; differential access;
3. Institutional arrangements: Village extension agents not training farmers and passing on vital skills and knowledge; piloting some of the simple extension approaches that push the project goals ahead even among livestock systems; stress participatory approaches within extension agents
4. Drudgery in farming: limited tools for row planting; water access; processing livestock feed; appropriate planters; business approaches around lack of access to feed technologies;
5. Input availability: chemicals, fertilizers and improved varieties (mainly access to improved vegetables and pasture)
6. Seasonal availability of feed; vegetable for water access
7. Fake seeds/ counterfeit seeds
8. Dry spells and drought
9. Poor/reduced soil fertility
10. Poverty, High input expenses 3
11. Pest and Diseases during growth and postharvest losses and storage pests 8

Themes: capacity development, mechanization, information access

**Key opportunities:**

1. Willingness of NGOs, district personnel, extension agents to work together but need training on approach and engagements including participatory approaches; may be an opportunity to integrate commodity based interventions and bring them on board
2. Critical mass of NGOs, private Sector and other organizations to provide linkages on upcoming work
3. Taking advantage of climate forecasting and existent ICT tools for communication, allow for automated irrigation that reduces drudgery; availability of small scale mechanized operations.
4. Need to make use of existent situations; in some cases markets need to be created;
5. Taking advantage of publicity campaigns through radio; know what to air and when, SMS based information that is context specific for farmers needs
6. Take advantage of CSA: around timely planting and early maturing varieties; conservation agriculture; drought resistant forages, crops, or other technologies developed in Phase I with private sector partners; need to proceed with this cautiously.
7. **Rice** …a possible opportunity?